

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-16. (Canceled)

17. (Currently Amended) A fuel cell system comprising:

an energy supply comprising a fuel cell, a power distributor connected to the fuel cell, and a secondary cell connected to the fuel cell via the power distributor;

a load set connected to the fuel cell and the secondary cell via the power distributor, the load set comprising auxiliary equipment for power generation of the fuel cell and a load other than the auxiliary equipment; and

a controller configured to, when the fuel cell system is started up and if a warm-up mode is required based on a possible generation of the fuel cell and a possible discharge from the secondary cell, control the power distributor to warm the energy supply by alternately repeated switching of a first power distribution unit and a second power distribution unit regardless of power consumption of the load other than the auxiliary equipment,

wherein the first power distribution unit has a first power generated at the fuel cell and distributed to the secondary cell and the load set, and

wherein the second power distribution unit has a combination of a second power generated at the fuel cell and a third power discharged from the secondary cell, distributed to the load set.

18. (Canceled)

19. (Currently Amended) A fuel cell system according to claim [[18]] 17, wherein the controller is configured to control the first power smaller than:

a possible maximum generation of the fuel cell; and

a sum of a power consumption at the auxiliary equipment and a possible maximum power charge to the secondary cell.

20. (Currently Amended) A fuel cell system according to claim [[18]] 17, further comprising a detection system configured to detect a first temperature of the fuel cell and a second temperature of the secondary cell, wherein the controller is configured to have:

the first power increase, as the first temperature is lower in rising speed than the second temperature; and

the second power decrease and the third power increase, as the first temperature is higher in rising speed than the second temperature.

21. (Currently Amended) A fuel cell system according to claim [[18]] 17, wherein the controller is configured to control the first power within a limited range depending on an SOC of the secondary cell.

22. (Currently Amended) A fuel cell system according to claim [[18]] 17, wherein the controller is configured to:

have the second power limited within a range higher than a difference between the third power and a fourth power to be consumed at the auxiliary equipment; and

control the power distributor to interrupt power supply from the fuel cell, as the third power is higher than the fourth power.

23. (Previously Presented) A fuel cell system according to claim 22, wherein the controller is configured to limit the third power, as the third power is higher than the fourth power.

24. (Currently Amended) A fuel cell system according to claim [[18]] 17, wherein the controller is configured to set a target SOC of the secondary cell such that power generation at the fuel cell is allowed to be greater in variation.

25. (Previously Presented) A fuel cell system according to claim 24, wherein the controller is configured:

to be responsible for an upper limit of the target SOC to decrease the second power within a range higher than a difference between the third power and a fourth power to be consumed at the auxiliary equipment; and

to have the second power minimized, as the third power is higher than the fourth power.

26. (Previously Presented) A fuel cell system according to claim 24, wherein the controller is configured to be responsible for a lower limit of the target SOC to increase the first power within a range lower than a sum of a fourth power to be consumed at the auxiliary equipment and a possible charge to the secondary cell.

27. (Currently Amended) A fuel cell system according to claim [[18]] 17, wherein the controller is configured to have a fourth power to be consumed at the auxiliary equipment, set higher than a reference consumption required for power generation of the fuel cell.

28. (Previously Presented) A fuel cell system according to claim 27, wherein the auxiliary equipment comprises an oxidizer supply configured to supply an oxidizer to the fuel cell, and

wherein the controller is configured to increase power consumption at the oxidizer supply for the oxidizer to be supplied by an increased flow rate at an increased pressure, to increase the fourth power.

29. (Previously Presented) A fuel cell system according to claim 27, wherein the auxiliary equipment further comprises a cooling system configured for a water cooling of the fuel cell, with a cooling water line having a radiator provided with a cooling fan, and a bypass member to bypass the radiator, and

wherein the controller is configured for operation of the bypass member to increase power consumption at the cooling fan, to increase the fourth power.

30. (Previously Presented) A fuel cell system according to claim 27, wherein the controller is configured to control the fourth power within a range lower than a sum of the second power and the third power.

31. (Currently Amended) A control method of a fuel cell system comprising an energy supply comprising a fuel cell, a power distributor connected to the fuel cell, and a secondary cell connected to the fuel cell via the power distributor, and a load set connected to

the fuel cell and the secondary cell via the power distributor, the load set comprising auxiliary equipment for power generation of the fuel cell and a load other than the auxiliary equipment,
the control method comprising:

when the fuel cell system is started up and if a warm-up mode is required based on a possible generation of the fuel cell and a possible discharge from the secondary cell, controlling the power distributor to warm the energy supply by alternately repeated switching of a first power distribution unit and a second power distribution unit regardless of power consumption of the load other than the auxiliary equipment,

wherein the first power distribution unit has a first power generated at the fuel cell and distributed to the secondary cell and the load set, and

wherein the second power distribution unit has a combination of a second power generated at the fuel cell and a third power discharged from the secondary cell, distributed to the load set.

32. (New) A fuel cell system comprising:

an energy supply comprising a fuel cell, a power distributor connected to the fuel cell, and a secondary cell connected to the fuel cell via the power distributor;

a load set connected to the fuel cell and the secondary cell via the power distributor; and

a controller configured to perform a warm-up control, when the fuel cell system is started up and if a warm-up mode is required based on a possible generation of the fuel cell and a possible discharge from the secondary cell, and in the warm-up control, to control the power distributor to warm the energy supply by alternately repeated switching of a first power distribution unit and a second power distribution unit,

wherein the first power distribution unit has a first power generated at the fuel cell and distributed to the secondary cell and the load set, and

wherein the second power distribution unit has a combination of a second power generated at the fuel cell and a third power discharged from the secondary cell, distributed to the load set.